Datasheet

Windows Server® 2012 R2 (OEM, ROK) FOR FUJITSU Server PRIMERGY/PRIMEQUEST

WITH THE RELEASE OF THE WINDOWS SERVER® 2012 R2 OPERATING SYSTEM FUJITSU EXPANDS ITS OFFERING OF X86 PRIMERGY/PRIMEQUEST SERVERBASED OPERATING SYSTEMS.

Windows Server 2012 R2

Windows Server 2012 R2 delivers a great set of qualities upon the promises of a modern datacenter, modern applications and people-centric IT. Windows Server 2012 R2:

- Offers a proven, enterprise-class datacenter and cloud platform that can scale up to run the largest workloads while enabling robust recovery options to protect against service outages. It offers automated protection and recovery of assets and cost-effective business continuity on-premises and in the cloud
- Provides resilient, multi-tenant-aware storage and networking capabilities for a wide range of workloads. It delivers these capabilities at a fraction of the cost of other solutions, through the use of cost-effective PRIMERGY/PRIMEQUEST hardware.
- In concert with Windows Azure and System Center 2012 R2, it unlocks improved application portability between on-premises environments and public and service provider clouds,
- Enables mission-critical applications and provides enhanced support for open standards, open source applications and various development languages.
- Provides an operating system platform that empowers the user by granting them access to corporate resources on the devices they choose while protecting critical information, allows to manage a user's identity across the datacenter and federated into the cloud, provides secure remote access and allows to manage both corporate- and personally-owned devices with a unified infrastructure.

Product lineup

The following editions of Windows Server 2012 R2 are available: Datacenter, Standard, Essentials, Foundation, and Windows Storage Server 2012 R2. All products include an English, German, French, Italian, Japanese and Spanish user interface. Additional language packs are available for download. For Windows Server Essentials 2012 R2 language support – see table Technical Details – Languages.

Delivery

The products ship packaged with the FUJITSU Server PRIMERGY/PRIMEQUEST system and is available in the PRIMERGY/PRIMEQUEST price list.

Serviceability

Products include a country-specific warranty.

Installation

ServerView Installation Manager, included with the FUJITSU Server PRIMERGY/PRIMEQUEST lets you install Windows Server 2012 R2 on the FUJITSU Server PRIMERGY/PRIMEQUEST system hardware. Windows Server 2012 R2 (OEM, ROK) can be installed as a guest operating system in Windows Server 2012 R2, Windows Server 2012, in Microsoft Hyper-V Server 2012 R2 and 2012.

Lifecycle Support Policy

Microsoft's support lifecycle for Windows Server 2012 R2 applies in addition to FUJITSU's PRIMERGY/PRIMEQUEST lifecycle: http://support.microsoft.com/gp/lifeselectindex#W

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Windows Server

Order numbers

- **Windows Server® 2012 R2 Datacenter 2CPU**
  OEM S26361-F2567-E413
  ROK S26361-F2567-D413
- **Windows Server® 2012 R2 Datacenter 4CPU**
  OEM S26361-F2567-E414
  ROK S26361-F2567-D414
-
- **Windows Server® 2012 Datacenter Additional License 2CPU No Media/Key**
  OEM S26361-F2567-E415
  ROK S26361-F2567-D415
- **Windows Server® 2012 R2 Standard 2CPU & 2VM**
  OEM S26361-F2567-E423
  ROK S26361-F2567-D423
- **Windows Server® 2012 R2 Standard 4CPU & 4VM**
  OEM S26361-F2567-E424
  ROK S26361-F2567-D424
- **Windows Server® 2012 Standard Additional License 2CPU & 2VM No Media/Key**
  OEM S26361-F2567-E425
  ROK S26361-F2567-D425
- **Windows Server ® 2012 R2 Essentials**
  OEM S26361-F2567-E432
  ROK S26361-F2567-D432
- **Windows Server ® 2012 R2 Foundation 1CPU**
  OEM S26361-F2567-E442
  ROK S26361-F2567-D442
- **Windows® Storage Server 2012 R2 Standard 2CPU & 2VM**
  OEM S26361-F2567-E453
  ROK S26361-F2567-E453
- **Windows® Storage Server 2012 R2 Standard 4CPU & 4VM**
  OEM S26361-F2567-E454
  ROK S26361-F2567-D454
- **Windows® Storage Server 2012 R2 Standard Additional License 2CPU & 2VM**
  OEM S26361-F2567-E455
  ROK S26361-F2567-D455
- **Windows Server® 2012 CAL 100/50/10/5/1 device**
  S26361-F2567-E468
  /E460/E462/E464/E466
  S26361-F2567-L468
  /L460/L462/L464/L466
- **Windows Server® 2012 CAL 100/50/10/5/1- user**
  S26361-F2567-E469
  /E461/E463/E465/E467
  S26361-F2567-L469
  /L461/L463/L465/L467
- **Windows Server® 2012 RDS CAL 100/50/10/5/1- device**
  S26361-F2567-E474
  /E476/E478/E470/E472
  S26361-F2567-L474
  /L476/L478/L470/L472
- **Windows Server® 2012 RDS CAL 100/50/10/5/1-user**
  S26361-F2567-E475
  /E477/E479/E471/E473
  S26361-F2567-L475
  /L477/L479/L471/L473

Your Features and Benefits

Windows Server 2012 R2 at a glance

Windows Server 2012 R2 Datacenter / Standard

Windows Server 2012 R2 Datacenter is the ideal edition for customers with highly virtualized private and hybrid cloud environments. It provides a virtualization flat rate thanks to the unlimited virtual use rights. Windows Server 2012 R2 Datacenter licenses are available that allow the OS to run on to 2 processors or on 4 processors. Additional licenses add 2 more processors each and can be stacked.

Windows Server 2012 R2 Standard offers customers with physical computing or lightly virtualized environments a flexible and reliable solution. Windows Server 2012 R2 Standard licenses are available that allow to run 2 virtual instances and on 2 processors as well as 4 virtual instances and 4 processors. Additional licenses add 2 more virtual instances / 2 more processors and can be stacked.

Features

- Windows Server 2012 R2 Hyper-V with Hyper-V Extensible Switch
- Hyper-V Replica
- Failover Clustering
- Live Migration
- Dynamic Memory
- Remote Desktop Services & Direct Access
- Data Security & Compliance

New with Windows Server 2012 R2:

- Gen 2 VMs: UEFI based, legacy free devices, SCSI boot, faster deployment due to removed legacy devices
- Remote access to VM over VM bus
- Significantly faster live migration
- Online VHDX resize
- Live export of VMs
- More robust Linux support in Hyper-V
- Significant enhancements to the storage stack
- Essentials role: Windows Server Essentials experience and value-add features available as a role; (this removes some of the limitations of the stand-alone Windows Server Essentials edition like e.g. Domain join, may have multiple servers with Essentials role enabled, exceed the limit of 25 users. – CALs are required though)

Benefits

- Support of more complex virtual environments
- Easy-to-handle connection of VMs to physical networks
- Hyper-V Replica enables business continuity and disaster recovery
- Live migration without SAN thanks to SMB failover
- Increase storage capacity thanks to direct connection between the VMs and Fiber Channel–based storage
- Keep virtual machines running although physical memory is not available thanks to second level paging
- Reduce downtime and costs in the case of file system failure

Windows Server 2012 R2 Essentials

As an ideal first server for small businesses with up to 25 users and 50 devices, Windows® Server 2012 R2 Essentials provides an affordable and easy-to-use solution to protect critical business data with advanced, automated backup features for clients and the server. It helps to organize and access business documents from virtually anywhere with centralized storage and remote access. Furthermore, it supports the applications small business customers need to run their business and allows quickly connecting to optional online services to increase the server's functionalities.

Features

- New License allows to run in a physical environment (as Hyper-V host) and in virtual environment at the same time.
- End-to-end integrated setup installs and configures many of the roles and features of Windows Server 2012 R2 according to best practices configuration for small business environments.
- Incorporates Storage Spaces feature; leverages all the improvements introduced with the Windows Server 2012 R2 storage stack
- Health monitoring - monitors its own health status and the status of clients running Windows 7, Windows 8 and 8.1 as well as Mac OS X version 10.5 and above
- Remote Web Access - access applications and data from virtually anywhere
- Microsoft Online Backup - cloud-based storage service that is managed by Microsoft

Benefits

- No CALs required
- AD automatically configured "out of the box"
- Allows complete system backups and bare-metal restores of the server as well as the client computers connected to the network – supports now volumes > 2TB
- Microsoft Online Backup - cloud-based storage service that is managed by Microsoft
- Centrally manages and configures the new File History feature of Windows 8 / 8.1 clients
- Easy VPN setup
- Extensibility model through add-ons

Windows Server 2012 R2 at a glance

Windows Server 2012 R2 Foundation

Windows Server 2012 R2 Foundation is the ideal solution for entry level customers looking for a cost effective single-socket server system. It supports up to 15 user accounts or devices and a maximum 1 CPU and 32 GB RAM. Windows Server 2012 R2 Foundation cannot be virtualized as a guest OS and cannot be used as a virtualization host OS. It offers features like:

- Operation of application
- File & print sharing
- Internet connection

Benefits

- No CALs required
- Replace of peer-to-peer network and get a reliable solution for small businesses
- Active Directory (AD) is optional, must be configured as the root of the AD forest and domain and may not be a child nor have trusts with any other domains
- Easy and cost-effective operation with central server and network management
- Flexibility for users due to access to data and applications
- Optional Mobility and Remote Desktop Services through the purchase of Windows Server 2012 RDS CAL
- Enhanced security features - be save while using public cloud services and mobile access to critical business data

Windows Storage Server 2012 R2 Standard

Windows Storage Server 2012 R2 is the most suitable operating system platform for NAS appliances that are pre-configured for customers that need a cost effective, reliable storage solution. Being a file based storage solution, it supports and incorporates enterprise class features like iSCSI target, SMB/NFS file sharing, clustering and continuous availability, cluster aware updating, data de-duplication, branch cache. It is designed as an optimized for storage solution, hence it does not support features like Active Directory Domain controller, application server roles, terminal services for applications, rights management server, certificate federation, fax server. Windows Storage Server 2012 R2 Standard licenses are available for running on 2 processors / 2 virtual instances and 4 processors / 4 virtual instances respectively. An Additional license will add 2 more processors / virtual instances.

New Improvements compared to Windows Storage Server 2012

- Write back cache
- Parity Storage Spaces supported in clustered configurations
- Hybrid storage pools: use SSDs and HDDs as different tiers in one Storage Space; automatic management between those tiers
- Support for NVMe
- Improved SMB: workload distribution and SMB sessions managed by share; direct SMB sessions to node with best connectivity

Benefits

- Scale out and Scale up file server
- No CALs required
- Support for an unlimited amount of users (may be only limited by particular hardware implementation)

Windows Server 2012 R2 - Comparison of editions and their technical specifications

Technical specification	Windows Server 2012 R2 Datacenter	Windows Server 2012 R2 Standard	Windows Server 2012 R2 Essentials	Windows Server 2012 R2 Foundation	Windows Storage Server 2012 R2 Standard
PRIMERGY/PRIMEQUEST supports max. CPU sockets	8 2 [1]	8 2 [1]	2 2	1 1	8 2 [1]
• Product license includes	2	2	N/A	N/A	2
• Stackable per additional licenses					
Max. VM supported	Unlimited VM	Unlimited VM	1 [3]	None	Unlimited VM
• VM use rights included per product	Unlimited VM	2 VM [2]	1 VM [3]	N/A	2 VM [2]
• Stackable per additional licenses	N/A	2 VM	N/A	N/A	2 VM
Max. physical RAM supported	4 TB	4 TB	64 GB	32 GB	2 TB
Hyper-V role supported [4]	Yes	Yes	Yes [3]	No	Yes
Max. logical processors supported	640	640	(2)	N/A	
Active virtual machines supported	1,024	1,024	1 [3]	N/A	
Cluster support max. nodes	64	64	Not supported	N/A	64
Max. Users / Devices	No limit [5]	No limit [5]	25 / 50 [6]	15	No limit [5]
Network Access Connections (RAAS)			50	50	50
Network Access Connections (IAS)			10	10	
Remote Desktop Services supported	Yes / Unlimited	Yes / Unlimited	No [7]	Yes / 50	No [7]
CALs required / included with license	Yes / 0	Yes / 0	No	No	No
RDS CALs required if used / included	Yes / 0	Yes / 0	N/A	Yes / 0	N/A
Admin connections allowed w/o CAL	2	2	2	N/A	N/A
Can act as a Domain Controller (AD)	Yes	Yes	Yes [8]	Yes [9]	No

1) Additional use rights for CPU sockets can be obtained with 1 or more Additional Licenses for 2 CPUs
2) Additional use rights for VMs can be obtained with 1 or more Additional Licenses for 2 VMs
3) Only Windows Server 2012 R2 Essentials as guest OS
4) Hyper-V guests can access 64 virtual CPUs, 1 TB of memory, and 64-TB VHDs
5) No technical limit designed into the product, particular hardware implementation might limit performance and hence limit reasonable amount of users or devices
6) Up to 50 devices: client connector can be installed on up to 50 devices
7) Except two admin remote sessions covered by product license
8) Domain controller is configured for max. 25 users and 50 devices and runs “out of the box”
9) AD must be configured for max. 15 users and must be the root of a forest

Technical Details

SOFTWARE REQUIREMENTS	
Server Operating System	Windows Server 2012 R2
	The minimum system hardware requirements are defined by Microsoft. All FUJITSU Server PRIMERGY/PRIMEQUEST systems, server blades and nodes, which are or will be certified ("logo'd"), fulfill these requirements.
Windows Server 2012 R2 Editions	Datacenter, Standard, Essentials, Foundation
Windows Server 2012 R2 Storage Server Editions	Standard
Product Updates	Updates through Microsoft via Windows Update
KB2919355 - Windows Server 2012 R2 Update April, 2014	All future security and nonsecurity updates for Windows Server 2012 R2 require this update to be installed. We recommend that all end-users install this update on their Windows Server 2012 R2-based FUJITSU Server PRIMERGY/PRIMEQUEST systems in order to receive continued future updates.
HARDWARE REQUIREMENTS	
FUJTSU Server PRIMERGY/PRIMEQUEST	PRIMERGY Blade / Rack / Tower Servers / PRIMEQUEST 2400E, 2800B, 2800E
Microsoft Hyper-V Server 2012 R2 free, for download at Microsoft	PRIMERGY BX2560 M1, BX2580 M1, BX920 S3, BX920 S4, BX924 S3, BX924 S4, CX250 S2, CX2550 M1, CX2570 M1, CX270 S2, CX272 S1, MX130 S2, RX100 S7, RX100 S7p, RX100 S8, RX1330 M1, RX200 S7, RX200 S8, RX2520 M1, RX2530 M1, RX2540 M1, RX2560 M1, RX300 S7, RX300 S8, RX350 S7, RX350 S8, RX4770 M1, RX500 S7, RX600 S6, RX900 S2, TX100 S3, TX100 S3p, TX120 S3, TX120 S3p, TX140 S1, TX140 S1p, TX140 S2, TX150 S7, TX150 S8, TX200 S7, TX300 S7, TX300 S8, TX1310 M1, TX1320 M1, TX1330 M1, TX2540 M1, TX2560 M1. PRIMEQUEST 2400E, 2800B, 2800E.
Windows Server 2012 R2 Datacenter	PRIMERGY BX2560 M1, BX2580 M1, BX920 S3, BX920 S4, BX924 S3, BX924 S4, CX250 S2, CX2550 M1, CX2570 M1, CX270 S2, CX272 S1, MX130 S2, RX100 S7, RX100 S7p, RX100 S8, RX1330 M1, RX200 S7, RX200 S8, RX2520 M1, RX2530 M1, RX2540 M1, RX2560 M1, RX300 S7, RX300 S8, RX350 S7, RX350 S8, RX4770 M1, RX500 S7, RX600 S6, RX900 S2, TX100 S3, TX100 S3p, TX120 S3, TX120 S3p, TX140 S1, TX140 S1p, TX140 S2, TX150 S7, TX150 S8, TX200 S7, TX300 S7, TX300 S8, TX1310 M1, TX1320 M1, TX1330 M1, TX2540 M1, TX2560 M1. PRIMEQUEST 2400E, 2800B, 2800E.
Windows Server 2012 R2 Standard	PRIMERGY BX2560 M1, BX2580 M1, BX920 S3, BX920 S4, BX924 S3, BX924 S4, CX250 S2, CX2550 M1, CX2570 M1, CX270 S2, CX272 S1, MX130 S2, RX100 S7, RX100 S7p, RX100 S8, RX1330 M1, RX200 S7, RX200 S8, RX2520 M1, RX2530 M1, RX2540 M1, RX2560 M1, RX300 S7, RX300 S8, RX350 S7, RX350 S8, RX4770 M1, RX500 S7, RX600 S6, RX900 S2, TX100 S3, TX100 S3p, TX120 S3, TX120 S3p, TX140 S1, TX140 S1p, TX140 S2, TX150 S7, TX150 S8, TX200 S7, TX300 S7, TX300 S8, TX1310 M1, TX1320 M1, TX1330 M1, TX2540 M1, TX2560 M1. PRIMEQUEST 2400E, 2800B, 2800E.
Windows Server 2012 R2 Essentials	PRIMERGY MX130 S2, RX100 S7p, RX100 S8, RX1330 M1, RX200 S7, RX200 S8, RX2520 M1, RX2530 M1, TX100 S3, TX100 S3p, TX120 S3, TX120 S3p, TX140 S1, TX140 S1p, TX140 S2, TX150 S7, TX150 S8, TX200 S7, TX1310 M1, TX1320 M1, TX1330 M1, TX2540 M1
Windows Server 2012 R2 Foundation	PRIMERGY MX130 S2, RX100 S7, RX100 S7p, RX1330 M1, RX100 S8, TX100 S3, TX100 S3p, TX120 S3, TX120 S3p, TX140 S1, TX140 S1p, TX140 S2, TX150 S7, TX150 S8, TX1310 M1, TX1320 M1, TX1330 M1
Windows Server 2012 R2 Storage Server Standard	PRIMERGY BX920 S3, BX920 S4, BX924 S3, BX924 S4, CX250 S2, CX270 S2, CX272 S1, MX130 S2, RX100 S7p, RX100 S8, RX1330 M1, RX200 S7, RX200 S8, RX2520 M1, RX2530 M1, RX2540 M1, RX300 S7, RX300 S8, RX350 S7, RX350 S8, TX100 S3p, TX120 S3p, TX140 S1p, TX140 S2, TX150 S8, TX200 S7, TX300 S7, TX300 S8, TX1310 M1, TX1320 M1, TX1330 M1, TX2540 M1
	Current release matrix for systems here. FUJITSU Server PRIMERGY/PRIMEQUEST components. Please see the release matrix for components. FUJITSU Storage ETERNUS systems. Please see the re-

SOFTWARE REQUIREMENTS

	lease matrix for ETERNUS.
Components Restrictions	Important. The following information will be updated based on further test and qualification results: SCSI Controller ASC 29320: due to End of Life by hardware vendor, no driver available, no support. No Wake on LAN support for the following systems/onboard LAN ports: TX150 S8 onboard LAN, TX200 S7 onboard LAN, RX900 S2 onboard 1G LAN No support of Intel SW Kit for INTEL Pro1000/CT, Pro 1000/PT PF, TX100 S3/S3p onboard LAN 1, TX120 S3/S3p onboard LAN1, TX140 S1/S1p onboard LAN 1, TX150 S7/S8 all onboard LAN ports, TX200 S7 all onboard LAN ports, RX100 S7/S7p onboard LAN 1, RX900 S2 onboard LAN. INTEL LAN Controller D2735 and D2745 - Windows In-box driver support only. Limitations in teaming support due to Windows In-box drivers for TX150 S7, TX150 S8, TX200 S7, RX900 S2: no RLB (Receive Load Balancing) and no SFT (Switch Fault Tolerance). Mellanox IB cards: no release, delayed to Q2/2014 Storage Spaces technology is not supported to operate on top of a Hardware- or Software RAID configuration. Storage Spaces – use with external storage enclosures: cannot use hotspare if the corrupted disk is in the different enclosures. This is per design for Storage Spaces. HBA LSI SAS 9200-8e PCIe for use with external storage enclosures, including Storage Spaces support is released for PRIMERGY RX100 S8, RX200 S8, RX2520 M1, RX300 S8, TX2540 M1. HBA PSAS CP200i 6G PCIe allows the connection of internal server HDDs and SSDs within PRIMERGY CX272 S1, SX960 S1.
System Requirements FUJITSU Server PRIMERGY/PRIMEQUEST	Processor. ECC Memory. RAM. Drive. DVD-ROM. Disk. RAID (Redundant Array of Independent Disks) is supported but not required. The system volume must be MBR. Additional volumes can be MBR or GPT. Keyboard. Video. Mouse. Logo requirements are the same for all editions of Windows Server 2012 R2. Windows Storage Server 2012 R2 Standard does not require keyboard, video, mouse and is always delivered without.
ETERNUS and PRIMERGY JBOD External Enclosures	ETERNUS JX40, JX60.

SERVERVIEW SUPPORT

Fujitsu ServerView Suite	ServerView Installation Manager as of version 11.13.10 or higher for Windows Server 2012 R2. The Essentials, Storage Server, and free Hyper-V Server editions require version 11.13.12 or higher. ServerView Operations/Update Manager as of version 6.21 manages Windows Server 2012 R2. ServerView RAID Manager as of version 5.7.7. ServerView Agents as of version 6.21. ServerView Update Agent as of version 6.21. PRIMERGY/PRIMEQUEST support package tool PrimeUp as of version 1.17.02. ServerView Update Manager Express 6.20.20.

LANGUAGES

	Windows Server 2012 R2 Datacenter, Standard, Foundation, and Windows Storage Server Standard products are multilingual and include the following languages: English (default), German, French, Italian, Japanese, and Spanish. Further language packs for Arab, Bokmal, Brazilian Portuguese, Bulgarian, Croatian, Czech, Danish, Dutch, Estonian, Finnish, Greek, Hebrew, Hungarian, Korean, Latvian, Lithuanian, Polish, Portuguese, Romanian, Russian, Serbian Latin, Slovak, Slovenian, Swedish, Thai, Turkish, and Ukrainian are are already included on Fujitsu's OEM and ROK DVD media, also available as end user downloads from Microsoft. Install using command line command lpksetup which opens a GUI and directs you through installation. This article describes the detail (full / partially localized) and language pack type: http://technet.microsoft.com/en-us/library/hh825678.aspx. Windows Server 2012 R2 Essentials includes the following languages: English, German, Japanese, French, Spanish, Italian, Dutch, Polish, and Portuguese.

HYPER-V

	Windows Server 2012 R2 Datacenter, Standard and Essentials contain Hyper-V. The Hyper-V role enables you to create and manage a virtualized computing

SOFTWARE REQUIREMENTS

	environment by using virtualization technology that is built in to Windows Server 2012 R2. Hyper-V is supported on all PRIMERGY/PRIMEQUEST servers.
Supported server guest operating systems	Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2 with SP1 Datacenter, Enterprise, Standard and Web editions, Windows Server 2008 R2 Datacenter, Enterprise, Standard and Web editions, Windows Server 2008 (32-bit and 64-bit) with SP2 Datacenter, Enterprise, Standard and Web editions, Windows Server 2008 (32-bit and 64-bit) Datacenter, Enterprise, Standard and Web editions, Windows Home Server 2011, Windows Small Business Server 2011 Essentials and Standard editions, Windows Server 2003 R2 with SP2 (32-bit and 64-bit) Standard, Web, Enterprise and Datacenter editions, Windows Server 2003 with SP2 (32-bit and 64-bit) Standard, Web, Enterprise and Datacenter editions, CentOS 5.7 – 6.4, Red Hat Enterprise Linux 5.7 – 6.4, SUSE Linux Enterprise Server 11 SP2, SP3, Ubuntu 12.04 , 12.10, 13.10, Oracle Linux 6.4 . For Hyper-V from a Windows Server 2012 R2 Essentials, only one virtual machine with Windows Server 2012 R2 Essentials can be installed.
Supported client guest operating systems	Windows 8.1, 8, Windows 7 with SP1 (32-bit and 64-bit) Ultimate and Enterprise editions, Windows 7 (32-bit and 64-bit) Ultimate and Enterprise editions, Windows Vista with SP2 Business, Enterprise and Ultimate editions.
	Install the integration services after you set up the operating system in the virtual machine. The entire list of supported guest operating systems and Service Packs can be found at: http://technet.microsoft.com/en-us/library/hh831531.aspx. Guest operating systems must be correctly licensed.

SPECIAL FEATURES SUPPORT

Secure Boot	Secure Boot is currently supported on PRIMERGY BX920 S4, BX924 S4, CX250 S2, CX270 S2, RX100 S8, RX1330 M1, RX200 S8, RX2520 M1, RX300 S8, RX350 S8, SX350 S8, TX1310 M1, TX1320 M1, TX1330 M1, TX140 S2, TX2540 M1, TX300 S8
Single Root IO Virtualization - SR-IOV	SR-IOV is currently supported on PRIMERGY BX920 S3, BX920 S4, BX924 S3, BX924 S4, RX200 S7, RX200 S8, RX300 S7, RX300 S8, RX350 S7, RX350 S8, RX500 S7, RX600 S6, RX900 S2, , TX150 S7, TX150 S8, TX200 S7, TX300 S7 and TX300 S8 for direct I/O throughput, reduced CPU utilization, increased scalability, and improved device performance for virtual guests.
Enhanced Power Management	The Enhanced Power Management feature identifies servers which support the next generation power management technology available with Windows Server 2012 R2. These features will provide cost-savings associated with reducing power consumption on each server. EPM is supported on FUJITSU Server PRIMERGY. BX920 S3, BX920 S4, BX924 S3, BX924 S4, RX100 S8, RX1330 M1, RX200 S7, RX200 S8, RX2520 M1, RX300 S7, RX300 S8, RX350 S7, RX350 S8, TX200 S7, TX2540 M1, TX300 S7, TX300 S8
Consistent Device Naming - CDN	CDN is currently supported on BX920 S3, BX920 S4, BX924 S3, BX924 S4, RX 100 S7p, RX100 S8, RX200 S7, RX200 S8, RX300 S7, RX300 S8, RX350 S7, RX350 S8, RX500 S7, RX900 S2, TX120 S3p, TX140 S1p, TX140 S2, TX150 S8, TX200 S7, TX300 S7 and TX300 S8

EDITION-SPECIFIC RESTRICTIONS

System Restrictions Windows Server 2012 R2 Essentials	Windows Server 2012 R2 Essentials is dedicated for use in Small Businesses. Therefore FC (Fibre Channel), FCoE (Fibre Channel over Ethernet), and IB (Infiniband) controllers are not released. Maximum 2 CPU and 64GB RAM supported. For MX130 S2 – min RAM of 2GB not sufficient for installation. Add more memory to system or reduce video memory to 32MB in BIOS
System Restrictions Windows Server 2012 R2 Foundation	Maximum 1CPU and 32GB RAM for systems with Windows Server 2012 R2 Foundation.
System Restrictions Windows Storage Server 2012 R2 Standard	Systems with Windows Storage Server 2012 R2 are designed and distributed for use without a monitor, keyboard or mouse (for certain maintenance or repairs, End User may connect a monitor, keyboard and mouse). • System must not be used as a substitute for a general purpose computing device.

	• Must not be used as a domain controller – this function is not supported. Must not be used to run as enterprise resource planning software, messaging or enterprise mail, web-based time management applications that address appointments, meetings and other calendaring items, Microsoft Exchange or Microsoft SharePoint Portal Server, team collaboration software, or Enterprise database software (such as Microsoft SQL Server). The Customer System may, however, be used to run or support non-enterprise database engines. This includes Microsoft SQL Server Desktop Engine and Microsoft SQL Server 2008 Express Edition.
Notes: Microsoft Hyper-V Server 2012 R2	Release and support for FUJITSU Server PRIMERGY/PRIMEQUEST for Windows Server 2012 R2 includes release and support for Microsoft Hyper-V Server 2012 R2, free end user download at Microsoft. Click the 'Free Download' button on the Microsoft Hyper-V Server product page www.microsoft.com/en-us/server-cloud/hyper-v-server/.
LICENSING	
Right to use – Server License	The software is licensed per server system based on the number of processors and instances of server software.
	Permanent Assignment. The software license is permanently assigned to the FUJITSU Server PRIMERGY//PRIMEQUEST with which you acquired the software. That server is the licensed server for that particular license. You may assign other software licenses to the same server, but you may not assign the same license to more than one server. Windows Server 2012 R2 Datacenter and Standard requires CALs, although not included. CALs are required for every user or device accessing a server. Licensing details: http://www.microsoft.com/en-us/server-cloud/windows-server/2012-editions.aspx
	OEM Virtual Machines Portability. VMs are not permanently assigned to a server . All Windows Server license types support virtual machine (VM) portability. Virtual machines (VM/Instances) are licensing-agnostic (VL, OEM, retail based images) and you can dynamically move instances of the software to any licensed server with the properly licensed edition that is capable of running the VM. You have the rights to run as many instances on the server as the assigned License Terms allow.
Right to use – Additional License	Additional OEM Licenses must be purchased together with the Server License, may not be purchased after the initial server sale.
Right to use – Client Access License (CAL)	CALs are no longer included in the Windows Server operating system license, but CALs are still required for access to any Windows Server 2012 R2 Datacenter or Standard instance (physical or virtual). These CALs must be purchased separately. OEM CALs are not tied to a server. Additional OEM CALs may be purchased after the initial server sale. CALs are channel agnostic; any CAL (OEM, VL, or Retail) can be used to access any Windows Server (OEM, VL, or Retail).
	OEM CALs are not tied to a server. Additional OEM CALs may be purchased after the initial server sale. CALs are channel agnostic; any CAL (OEM, VL, or Retail) can be used to access any Windows Server (OEM, VL, or Retail). OEM CALs are independent of the server operating system license and are still valid after the server operating system license has been retired. CALs are only required for users or devices that have direct access to the server. Customers will need a CAL for each employee, or each employee device, that accesses the Windows Server, but not for anonymous users who access it over the internet.
End User License Terms	Delivered with the product, either electronically or printed on paper. By using the software, you accept the license terms. If you do not accept them, do not use the software. Instead, contact Fujitsu to determine our return policy for a refund or credit.
Product Activation Notice to End Users – OEM	Certain Microsoft® Products included with this computer may use technological measures for copy protection. Unless the software is activated, you have no right to use the software after the time permitted for activation. This is to prevent its unlicensed use. You are not permitted to bypass or circumvent activation. Product activation procedures and Microsoft's privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the Software or

	reconfigurations of this computer, and may be completed by Internet or telephone (toll charges may apply). The software will remind you to activate it until you do. New PRIMERGY/PRIMEQUEST server systems ship pre-activated when sold with Windows Server 2012 R2 directly ex-factory (OEM), except RX900 S2.
Product Activation Notice to End Users – ROK	Certain Microsoft® software products included with this computer system may use technological measures for copy protection. If properly licensed, you have the right to use the version of the software installed during the installation process up to the time permitted for activation. Unless the software is activated, you have no right to use the software after the time permitted for activation. This is to prevent its unlicensed use. You are not permitted to bypass or circumvent activation. Product activation procedures and Microsoft's privacy policy will be detailed during the initial launch of the product, or upon certain reinstallations of the software products or reconfigurations of this computer system, and may be completed by Internet or telephone (toll charges may apply).
Product Validation of User Accounts and Active Directory Pre-Sale End User Notification – Essentials and Foundation OEM and ROK	Certain Microsoft software products or server technologies included with this server may limit the number of permissible user accounts and/or require certain Active Directory and domain configurations. If not properly configured, the software will generate warnings to correct the configuration. The warnings will alert you as to the behavior of the software in the absence of corrective measures, which may include the periodic shutdown of the server. The warnings and shutdowns will cease once the configuration is corrected. For more information about these features as they apply to the product, please review the product-specific documentation located on www.microsoft.com.
Downgrade Rights	Windows Server 2012 R2 Datacenter, Standard, Essentials and Foundation licenses include downgrade and/or down-edition rights to Windows Server 2012, Windows Server 2008 R2 and Windows Server 2008. The majority of customers, who are requesting a downgrade, already have an existing environment running a previous version of Windows Server. They may use their existing media and keys to exercise their downgrade rights. The ability to run downgrade bits does not change the licensing or support terms in which you can use the product; the purchased product (Windows Server 2012 R2) rights apply. This means that the license will continue to cover two physical processors and the virtualization rights do not change, i.e., the license entitles up to two virtual machines if Windows Server 2012 R2 Standard was purchased. • Windows Server 2012 R2 Datacenter includes downgrade and down-edition rights to Windows Server 2012 Datacenter, Standard, Essentials, Windows Server 2008 R2 Datacenter, Enterprise, and Standard and to Windows Server 2008 Datacenter, Enterprise, and Standard. Due to license terms, Fujitsu is unable to provide downgrade media / or product key for Windows Server 2008. • Windows Server 2012 R2 Standard includes downgrade rights to Windows Server 2012 Standard and Essentials, Windows Server 2008 R2 Enterprise, Standard and to Windows Server 2008 Enterprise, and Standard. Due to license terms, Fujitsu is unable to provide downgrade media / or product key for Windows Server 2008. • Windows Server 2012 R2 Essentials: End users have a downgrade right to Windows Server 2012 Essentials or Windows Small Business Server 2011 Essentials. Due to license terms, Fujitsu is unable to provide downgrade media and / or product key. • Windows Server 2012 R2 Foundation: End users have a downgrade right to Windows Server 2012 Foundation and Windows Server 2008 R2 Foundation. Due to license terms, Fujitsu is unable to provide downgrade media and / or product key. Upon end user request, Fujitsu is able to provide downgrade media and / or product key for Windows Server Datacenter, Enterprise, and Standard.
Downgrade Fulfillment	Downgrade/down-edition (DG/DE) Media Kits from Fujitsu are available per end-user request at point-of-sale or to a previously licensed OEM or ROK customer. DG/DE Media Kits from Fujitsu include Fujitsu branded DOWNGRADE AND DOWN-EDITION DVD OEM/ROK media and a Product Key Card with product key and

	EULA. Requires original purchase of licensed software. EULA. With your order confirmation you are confirming that this is per your explicit request. This product is provided at no charge except reasonable materials, shipping and handling costs.
	• S26361-F2567-E486 DG/DE Kit Windows Server 2012 Datacenter • S26361-F2567-E487 DG/DE Kit Windows Server 2012 Standard • S26361-F2567-E480 DG/DE Kit Windows Server 2008 R2 SP1 Datacenter • S26361-F2567-E481 DG/DE Kit Windows Server 2008 R2 SP1 Enterprise • S26361-F2567-E482 DG/DE Kit Windows Server 2008 R2 SP1 Standard These DG/DE DVD Media and Product Key Kits are only provided to End Users upon End User request, inside the PRIMERGY/PRIMEQUEST system package. This product provides End Users an option for obtaining the media and product keys needed to exercise their downgrade rights, per their end user license terms (EULA).
	However shipments to a previously licensed customer are per request for Special Release only, in addition to the request of the following order numbers: • S26361-F2567-L486 DG/DE Kit Windows Server 2012 Datacenter • S26361-F2567-L487 DG/DE Kit Windows Server 2012 Standard • S26361-F2567-L480 DG/DE Kit Windows Server 2008 R2 SP1 Datacenter • S26361-F2567-L481 DG/DE Kit Windows Server 2008 R2 SP1 Enterprise • S26361-F2567-L482 DG/DE Kit Windows Server 2008 R2 SP1 Standard
	Fujitsu needs to document the proof of purchase of a qualifying Windows Server 2012 R2, 2012 or 2008 R2 (OEM, ROK) product and license together with a PRIMERGY/PRIMEQUEST server system in order to avoid unauthorized distribution of product keys subject to a default charge. Fujitsu will request proof of purchase during the Request for Special Release process.
Downgrading Windows Server CAL	Downgrading Windows Server 2012 CAL (Client Access Licenses) does not require any additional activities nor deliverables nor keys. However, downgrading Windows Server 2012 RDS CAL (Remote Desktop Services CAL) requires the end user to call the Microsoft RDS Clearinghouse during activation. Locate the Microsoft Clearinghouse telephone number for your country or region at http://technet.microsoft.com/en-us/library/cc754874.aspx.
SOFTWARE ASSURANCE	
Enrollment of Original Equipment Manufacturer Licenses into Software Assurance	Software Assurance (SA) is Microsoft´s maintenance program providing benefits that may include new version rights, additional use rights, spread payments, consulting services, training, support and more. Software Assurance is available for the latest version* of the software: Windows Server 2012 R2. You must acquire Software Assurance within 90 days of your purchase (see the Microsoft Volume Licensing Product List for details). If you acquire Software Assurance for an OEM license, your use of the software becomes subject to the Microsoft Product Use Rights for that product and the terms and conditions or your organization's Volume Licensing agreement. After expiration of SA, OEM terms apply again. SA and Microsoft Volume Licenses, e.g. Select Plus or Open have to be sourced from authorized Microsoft Large Account Resellers (LARs). Fujitsu is authorized Microsoft LAR in a number of territories around the world. Fujitsu is authorized Microsoft LAR for the region European Union (EU) and the European Free Trade countries (EFTA). For further assistance please contact PM-Team-LAR@ts.fujitsu.com. *The latest version is determined by the most recent version available on the Volume Licensing Service Center.
SUPPORT FROM FUJITSU	
	Basic Installation Support – free of charge. Issues referring to any HW-Warranty- or HW-Support-Service for a Fujitsu Server PRIMERGY/PRIMEQUEST system, that are related to the initial installation of Windows Server 2012 R2 are supported by the Maintenance organization responsible for the HW Support. Such basic installation support includes support issues for installation of the operating system as a POSE (Physical Operating Software Environment) onto the Fujitsu Server PRIMERGY/PRIMEQUEST system hardware. Issues related to a VOSE (Virtual Operat-

	ing System Environment) installation are not for free and are commercial support service offerings. Commercial support service offerings such as the Fujitsu Support Pack for Windows Server 2012 R2, Service Contract (Software), or Advanced Installation Pack for Fujitsu Server PRIMERGY/PRIMEQUEST systems are options, not included with the purchase of the Windows Server (OEM, ROK) license.
SUPPORT LIFE CYCLE	
	Microsoft's support lifecycle for Windows Server 2012 R2 applies in addition to Fujitsu's PRIMERGY/PRIMEQUEST lifecycle. Lifecycle Start Date 10/30/2013, Mainstream Support End Date 1/9/2018, Extended Support End Date 1/10/2023: • Datacenter http://support.microsoft.com/gp/lifeselectindex#W • Standard http://support.microsoft.com/gp/lifeselectindex#W • Essentials http://support.microsoft.com/gp/lifeselectindex#W • Foundation http://support.microsoft.com/gp/lifeselectindex#W • WSS Standard http://support.microsoft.com/gp/lifeselectindex#W

More Information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu Windows Server 2012 R2 OEM / ROK for FUJITSU Server PRIMERGY/PRIMEQUEST, Fujitsu provides a range of platform solutions. They combine reliable FUJITSU products with the best in services, know-how and worldwide partner-ships.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing products

www.fujitsu.com/global/services/computing/

- PRIMERGY: Industrial standard server
- PRIMEQUEST: Mission Critical IA Server
- ETERNUS: Storage system

Software

www.fujitsu.com/software/

- Windows Server: FUJITSU PRIMERGY/PRIMEQUEST Operating System
- ServerView: FUJITSU PRIMERGY/PRIMEQUEST Server Management

More information

Learn more about FUJITSU Server PRIMERGY/PRIMEQUEST, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.
www.fujitsu.com/PRIMERGY
www.fujitsu.com/PRIMEQUEST

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at:
www.fujitsu.com/global/about/environment/

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Contact
FUJITSU
Fujitsu Technology Solutions GmbH
Address: Heinz-Nixdorf-Ring 1, 33106 Paderborn, Germany
Website: www.ts.fujitsu.com/
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